

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1. (Currently Amended) A biologically active complex comprising alpha-lactalbumin or a variant of alpha-lactalbumin (α -lactalbumin) at least 70% identical to human alpha-lactalbumin (SEQ ID NO:1) or at least 70% identical to bovine alpha-lactalbumin (SEQ ID NO:2) which is in the apo folding state, or a fragment of either of any of these, and a cofactor which stabilises the complex in a biologically active form, provided that ~~any the variant and the fragment of α -lactalbumin or a variant thereof~~ comprise[[s]] a region corresponding to the region of α -lactalbumin which forms the interface between the alpha and beta domains defined by amino acids 34-38 and amino acids 82-86 of SEQ ID NO:1, and wherein the variant and the fragment are at least 100 amino acids in length, and further provided that when the complex comprises full length α -lactalbumin or a variant of α -lactalbumin in which the calcium binding site has been modified so that the affinity for calcium is reduced, or it is no longer functional, the cofactor is other than C18:1:9 cis fatty acid.

2. (Previously Presented) A complex according to claim 1 wherein the cofactor is a cis C18:1:9 or C18:1:11 fatty acid.

3. (Previously Presented) A complex according to claim 1 wherein the cofactor is C18:1:11 fatty acid.

4. (Currently Amended) A complex according to claim 1 which comprises a ~~fragment of α -lactalbumin or a the variant or the fragment, thereof, which wherein the~~

fragment includes a region corresponding to the region of α -lactalbumin which forms the interface between the alpha and beta domains defined by amino acids 34-38 and amino acids 82-86 of SEQ ID NO:1.

5. (Currently Amended) A biologically active complex according to claim 1 which is obtainable by combining

(i) a cis C18:1:9 or C18:1:11 fatty acid; and

(ii) α -lactalbumin from which calcium ions have been removed, or a variant at least 70% identical to human alpha-lactalbumin (SEQ ID NO:1) or at least 70% identical to bovine alpha-lactalbumin (SEQ ID NO:2) of ~~α -lactalbumin~~ from which calcium ions have been removed or which does not have a functional calcium binding site; or a fragment of either of any of these, provided that any fragment comprises a region corresponding to the region of α -lactalbumin which forms the interface between the alpha and beta domains defined by amino acids 34-38 and amino acids 82-86 of SEQ ID NO:1, and wherein the variant and the fragment are at least 100 amino acids in length, and further provided that when (ii) is full length α -lactalbumin or a variant of α -lactalbumin in which the calcium binding site has been modified so that the affinity for calcium is reduced, or it is no longer functional, (i) is other than C18:1:9 cis fatty acid.

6. (Previously Presented) A complex according to claim 1 which includes a variant of α -lactalbumin in which the calcium binding site has been modified so that the affinity for calcium is reduced, or it is no longer functional, and in which the cofactor is C18:1:11 fatty acid..

7. (Currently Amended) A complex according to claim 6 wherein the variant has a mutation at a position corresponding to at least one of the K79, D82, D84, D87 or D88 residues of bovine alpha-lactalbumin (SEQ ID NO:2).

8. (Currently Amended) A complex according to claim 7 which includes a D87A variant of α -lactalbumin (SEQ ID NO:3) or D87N variant of α -lactalbumin (SEQ ID NO:4).

9. (Currently Amended) A complex according to claim 1 which comprises a fragment of α -lactalbumin or a variant thereof, and where the fragment includes the entire region from amino acid 34-86 of SEQ ID NO:1 or SEQ ID NO:2 ~~the native protein~~.

10. (Currently Amended) A complex according to claim 1 wherein the α -lactalbumin is human α -lactalbumin (SEQ ID NO:1) or bovine α -lactalbumin (SEQ ID NO:2) or a variant at least 70% identical to[[of]] either of these.

11. (Currently Amended) A complex according to claim 10 wherein the α -lactalbumin is human α -lactalbumin (SEQ ID NO:1).

12. (Currently Amended) A complex according to claim ~~[[11]]~~10 wherein the α -lactalbumin is mutant bovine α -lactalbumin which includes an S70R mutation (SEQ ID NO:5).

13. (Previously Presented) A complex according to claim 1 which further comprises calcium ions.

14. (Previously Presented) A pharmaceutical composition comprising a complex according to claim 1 in combination with a pharmaceutically acceptable carrier.

15. (Previously Presented) A method for treating cancer which comprises administering to cancer cells a complex according to claim 1, said cancer cells being killed as a result of said treatment.

Claim 16. (Canceled)

17. (Currently Amended) ~~[[the]]~~The method of claim 15 wherein said complex is administered orally, as an injection, as an inhalant, or topically.

18. (New) A complex according to claim 1 wherein the cofactor is an unsaturated cis fatty acid which stabilises the complex in a biologically active form.

19. (New) A complex according to claim 1 wherein the cofactor is an C18:1 cis fatty acid which stabilises the complex in a biologically active form.

20. (New) A complex according to claim 2, wherein the variant of alpha-lactalbumin is at least 95 % identical to human alpha-lactalbumin (SEQ ID NO:1) or at least 95 % identical to bovine alpha-lactalbumin (SEQ ID NO:2).

21. (New) A complex according to claim 20, wherein the variant of alpha-lactalbumin is at least 95 % identical to human alpha-lactalbumin (SEQ ID NO:1).

22. (New) A complex according to claim 21, wherein the variant of alpha-lactalbumin at least 95 % identical to human alpha-lactalbumin (SEQ ID NO:1) comprises conservative amino acid substitutions.

23. (New) A complex according to claim 3, wherein the variant of alpha-lactalbumin is at least 95 % identical to human alpha-lactalbumin (SEQ ID NO:1) or at least 95 % identical to bovine alpha-lactalbumin (SEQ ID NO:2).

24. (New) A complex according to claim 23, wherein the variant of alpha-lactalbumin is at least 95 % identical to human alpha-lactalbumin (SEQ ID NO: 1).

25. (New) A complex according to claim 24, wherein the variant of alpha-lactalbumin at least 95 % identical to human alpha-lactalbumin (SEQ ID NO: 1) comprises conservative amino acid substitutions.